**DEPARTMENT OF THE ARMY**
**TECHNICAL MANUAL**

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# SURVIVAL KIT, COLD CLIMATE, INDIVIDUAL

**NSN 1680-00-973-1862**

* This manual supersedes TM 55-8465-212-10, 18 June 1971

**HEADQUARTERS DEPARTMENT OF THE ARMY**
**12 JUNE 1986**

**TM 55-1680-348-10**
**C 1**

Change NO. 1

HEADQUARTERS
DEPARTMENT OF THE, ARMY
WASHINGTON, D. C., 3 October 1988

**OPERATOR'S MANUAL**

**SURVIVAL KIT,COLD CLIMATE,**
**INDIVIDUAL**
**NSN 1680-00-973-1862**

TM 55-1680-348-10, 12 June 1986, is changed as follows:

1. Remove and insert pages as indicated below. New or changed text material is indicated by a vertical bar in the margin. An illustration change is indicated by a miniature pointing hand.

| Remove pages | Insert pages |
|---|---|
| i and ii | i and ii |
| 2-3 and 2-4 | 2-3 and 2-4 |
| 2-7 and 2-8 | 2-7 and 2-8 |
| 2-19 and 2-20 | 2-19 and 2-20 |
| 2-23/2-24 | 2-23 and 2-24 |
| A-1/A-2 | A-1/A-2 |

2. Retain this sheet in front of manual for reference purposes.

By order of the Secretary of the Army:

JOHN H. WICKHAM, JR.
*General, United States Army*
*Chief of Staff*

*Official:*

R. L. DILWORTH
*Brigadier General, United States Army*
*The Adjutant General*

DISTRIBUTION:
To be distributed in accordance with DA Form 12-31, -10 and CL requirements for all Fixed and Rotary Wing Aircraft.

**WARNING**

PRECAUTIONARY DATA

Personnel performing operations, procedures, and practices which are included or implied in this technical manual shall observe the following instructions. Disregard of these instructions can cause serious or fatal injury to personnel.

INITIAL SURVIVAL PROCEDURES. To prevent head injuries, the aircraft crewmember helmet should be worn when walking through forest areas and during hoisting operations used in rescue helicopter pickup.

SMOKE AND ILLUMINATION SIGNAL. Do not attempt to ignite both ends of a signal at the same time.

SMOKE AND ILLUMINATION SIGNAL. Use extreme care when using the signal as an illumination device, as hot molten rest" due dripping from the burning signal can cause serious burns on the body.

TRIOXANE COMPRESSED FUEL. Trioxane compressed fuel contains metaformaldehyde, which is highly toxic. Ingestion constitutes a medical emergency. Wash hands immediately after handling opened or leaking packages.

MATCH, NONSAFETY. Matches, nonsafety are to be stored after package is opened in the plastic match container with the match heads resting on the bottom of the container. Matches are to be stored loosely. Failure 10 comply with these instructions could cause the matches to ignite within the sealed container causing an explosion of the container and possible injury to individuals handling or in close range of the plastic match container.

Technical Manual
No. 55-1680-348-10

HEADQUARTERS
DEPARTMENT OF THE ARMY
WASHINGTON, D. C., 12 June 1986

**OPERATOR'S MANUAL**

# SURVIVAL KIT, COLD CLIMATE, INDIVIDUAL NSN 1680 00 973 1862

REPORTING ERRORS AND RECOMMEN DING IMPROVEMENTS. You can help improve this manual. If you find any mistakes or if you know of a way to improve the procedures, please let us know. Mail your letter, DA FORM 2028 (Recommended Changes to Equipment Publications and Blank Forms), direct to Commander, US Army Aviation Systems Command. ATTN: AMSAV- MMD, 4300 Goodfellow, Blvd., St. Louis, MO 63120-1798. A reply will be furnished to you.

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# CHAPTER 1

# INTRODUCTION

## Section I. GENERAL INFORMATION

### 1-1 SCOPE 1-1.

This manual is for your use when, as an aircraft crewmember or passenger, you are required to operate and apply the components of the individual cold climate survival kit in a survival situation. The cold climate survival kit is designed for use on all US Army aircraft, except the OV-1 (Mohawk) aircraft. The purpose of this publication is to provide you with a description of the kit contents and brief instructions on the use of each item.

### 1-2. MAINTENANCE FORMS AND RECORDS 1-2.

Department of the Army forms and procedures used for equipment maintenance will be those prescribed by DA PAM 738-751, Functional Users Manual for The Army Maintenance Management System - Aviation (TAMMS-A).

## 1-3. REPORTING EQUIPMENT IMPROVEMENT RECOMMENDATIONS (EIR's) 1-3.

If your Survival Kit needs improvement, let us know. Send us on EIR. You, the user, are the only one who can tell us what you don't like about your equipment. Let us know why you don't like the design or performance. Put it on an SF 368 (Quality Deficiency Report). Mail it to: Commander, U.S. ARMY Aviation Systems Command, ATTN: AMSAV-MPSD, 4300 Goodfellow Blvd., St. Louis, Mo. 63120-1798. We'll send you a reply.

## Section II. EQUIPMENT DESCRIPTION

### 1-4. EQUIPMENT CHARACTERISTICS, CAPABILITIES AND FEATURES 1-4.

The individual cold climate survival kit (figure 1-1) consists of a cotton/nylon duck outer case which is equipped with a web carrying handle (3), an outside stowage pocket (2) with closing flap (1), two adjustable parachute attaching straps (4) with quick disconnect snap fasteners (5), a slide fastener (zipper) (6) which is used to secure the kit inner case and kit survival components, and back pack straps (7). When the outer case is opened, several of the kit's larger components, the kit packing list, and the inner case are exposed. The kit packing list provides you with the location and identification of each survival component. Access to the remaining kit items is gained by opening the inner case slide fastener.

**NOTE**

**In the event of an emergency bailout, the survival kit may be attached to either a back-type or chest type personnel parachute harness.**

## 1-5. EQUIPMENT DATA 1-5.

Weight..... 28 pounds
Height.....5 1/2 inches
Width.....15 inches
Length .....19 inches

# CHAPTER 2

# OPERATING INSTRUCTIONS

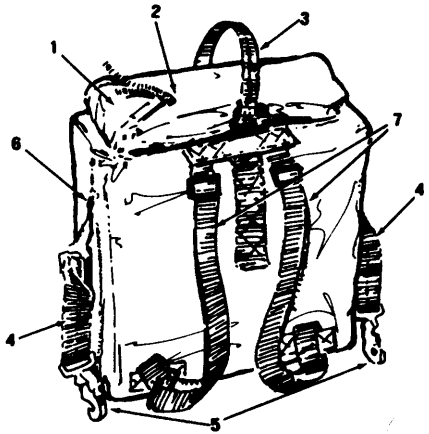
## Section I. DESCRIPTION AND USE OF OPERATOR'S (KIT) COMPONENTS

### 2-1. INITIAL SURVIVAL PROCEDURES 2-1.

a. After a parachute landing, recover the parachute canopy and harness for further survival use as outlined in TM 10-1670-1, located in the parachute log record in the stowage pocket (2, figure 1-1). On the backtype parachute, the pocket is located on the bottom of the pack inside of the back pad.

**WARNING**

**To prevent head injuries, the aircraft crewmember helmet should be worn when walking through forest areas and during hoisting operations used in rescue helicopter pickup.**




1. POCKET CLOSING FLAP
2. STOWAGE POCKET
3. CARRYING HANDLE
4. PARACHUTE ATTACHING STRAP
5. QUICK DISCONNECT SNAP FASTENER
6. ADJUSTABLE SLIDE FASTENER
7. BACK PACK STRAP

**Figure 1-1. The Individual Cold Climate Survival Kit Packed**

b. For protection against environmental conditions, insure you keep all of your flight clothing and equipment which includes the aircrew helmet and sunglasses.

c. Open the survival kit, check the packing list, and ascertain which items are required for immediate use. It is recommended that priority be given to considering the use of the signaling devices and secure these items within the stowage pocket (2, figure 1-1) on top of the outer case. This will Plow you immediate accessibility to the signal equipment, when required. Remove the signaling mirror and slip the mirror retaining cord over your head to your neck. Unzip the top of your flying suit or jacket and slip the mirror inside the clothing to prevent the mirror from dangling out and being broken.

## 2-2. KIT ASSEMBLY 2-2.

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The survival components of the Individual Cold Climate Survival Kit are assembled within the kit inner case as shown in the illustrations and tabular listing, figure 2-1.

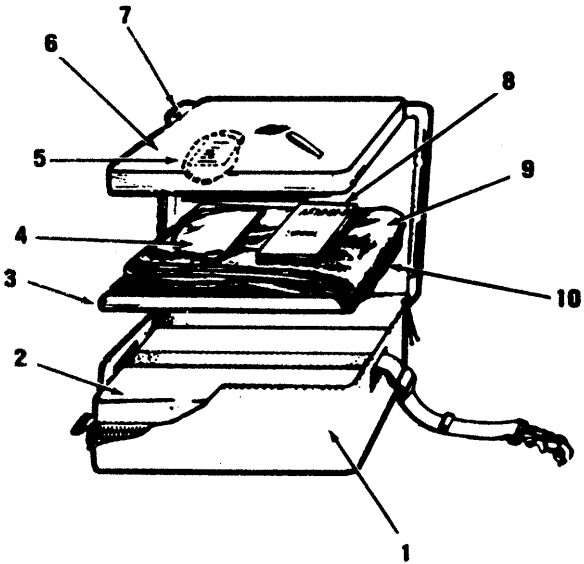


**Figure 2-1. Cold Climate Survival Kit (Sheet 1 of 3)**

**COLD CLIMATE SURVIAL KIT**

| Key | Item | Function |
|---|---|---|
| 1 | Outer Case | Contains the kit inner case. |
| 2 | Inner Case | Contains small kit components. |
| 3 | Saw-knife-shovel paragraph 2-5) | Cut small trees and holes in ice; shovel snow |
| 4 | Water bag (paragraph 2-13 | Strong rainfall water or other source |
| 5 | Packing list | Provides location! identification of each survival component |
| 6 | Sleeping bag (paragraph 2-19 | Provides warmth/ protection. |
| 7 | Operator's manual | Provides instructions for using the Survival Kit components (located in stowage pocket of outer case covering. Item 2, figure 1-1). |
| 8 | Survival manual (paragraph 2-15) | Provides instructions on survival under all climatic conditions |
| 9 | Poncho (paragraph 2-9) | Provides rain protection, shelter, and can be used as a ground cloth. |
| 10 | Insect headset (paragraph 2-8) | Protects face and neck from insects |

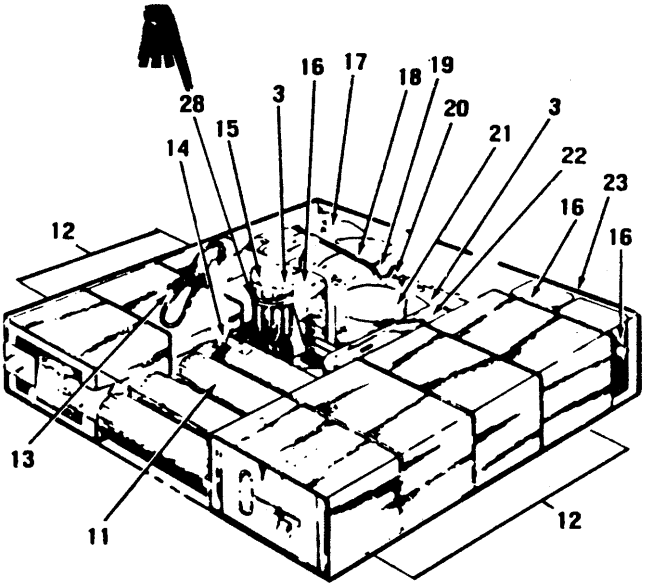


**Figure 2-1 Cold Climate Survival Kit (Sheet 2 of 3)**

**Cold Climate Survival Kit (Continued)**

| Key | Item | Function |
|---|---|---|
| 11 | Illuminating candle (paragraph2-11) | Provides lighting/ warmth. |
| 12 | Food packet (paragraph 2-12) | Contains food for emergency use |
| 13 | Snare wire (paragraph 2-21) | Construct snares for small game |
| 14 | Smoke and Illumination signal (paragraph 2-10) | Used for day or night distress signaling. |
| 15 | Match box (paragraph 2-20) | Plastic match container with striker on inside of cap |
| 16 | Wood matches (paragraph 2-7) | Provides fire for warmth, cooking and smoke signals |
| 17 | First aid kit (paragraph 2-6) | Contains medical items and instructions for use |
| 18 | Fire starter paragraph 2-24) | Build a fire. |
| 19 | Saw, hand, finger grip (paragraph 2-25) | Cut fire building material. |
| 20 | Blanket, combat casualty (paragraph | Provides warmth and serves as a signaling 2-26) device |
| 21 | Magnetic compass (paragraph 2-4) | Determines direction of travel. |
| 22 | Pocket knife (paragraph2-23) | Aids cleaning fish/ small game |
| 23 | Frying Pan (2-18) | Cooking/wash basin. |

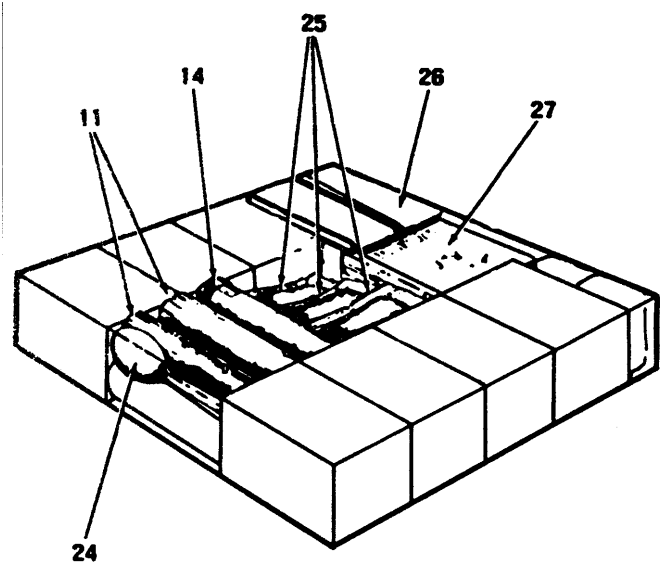


**Figure 2 1. Cold Climate Survival Kit (Sheet 3 of 3)**

**Cold Climate Survival Kit (Continued)**

| Key | Item | Function |
|---|---|---|
| 24 | Plastic spoon (paragraph 2-14) | Provides aid for cooking and eating. |
| 25 | Trioxane compressed fuel (paragraph 16) | Used to heat food: fire-starting aid. |
| 26 | Signaling mirror (paragraph 17) | Use to signal aircraft, ships or rescue parties |
| 27 | Fishing kit (paragraph 2-22) | Used to aid in catching fish. |
| 28 | Sharpener (paragraph 2-25) | Used to sharpen knives. |

## 2-3. GENERAL 2-3

This section provides instruction on the operation and use of all the components contained in the individual cold climate survival kit.

## 2-4. MAGNETIC COMPASS 2-4.

**CAUTION**

**When not being used, the magnetic compass must be stored in an upside down position to prevent unnecessary wear on the compass pivot and jewel.**

**NOTE**

- **The arrow on the compass dial always points to magnetic "NORTH."**
- **Items which contain iron or steel, and other types of compasses may cause the MC 1 magnetic compass to give incorrect readings.**

The type MC-1 pocket magnetic compass is a very important aid in ascertaining your direction of travel. The compass is equipped with a transparent plastic top, a long line (lubber line) for determining the directional course reading, and two lanyard attaching rings located on the bottom of the compass case for use in attaching a retaining lanyard. To use the compass, hold the compass erect in a manner which places the lubber line parallel to your line of sight, or in the fore and aft position to your line of travel. Your course heading may then be read on the top or the side of the compass dial under the forward end of the lubber line.

## 2-5. SAW-KNIFE-SHOVEL ASSEMBLY 2-5.

The type A-2 saw-knife-shovel assembly is equipped with a removable handle which may be attached to either the saw-knife or the shovel. The saw-knife has one edge with saw-type teeth and the opposite side has a formed knife edge. The saw-knife portion of the assembly can be used for cutting small trees or limbs, cutting holes in ice for fishing, or when dressing game. The shovel may be used to shovel snow when building a snow shelter, making rescue signals in snow covered clear areas, and other uses as recommended in the survival manual (AFM 64-5 or FM 21-76).

## 2-6. FIRST AID KIT 2-6.

The aviator's camouflaged first aid kit contains medical items necessary for applying first aid and instructions on the use of each medical item. Instructions for first aid treatment of injuries are specified in the survival manual (AFM 64-5 or FM 21-76).

## 2-7. WOOD MATCHES 2-7.

The individual cold climate survival kit is equipped with a plastic waterproof container of nonsafety wood matches. The matches are to be used as a fire starter when you are in need of warmth, when cooking rations, or to produce smoke signals for attracting rescue parties. Upon opening the container of matches, insure the container contents are transferred to the waterproof match box for further protection from moisture or damage.

## 2-8. INSECT HEADNET 2-8

The insect headnet is a combination net and hat unit used to protect your face and neck from insects. The

net is equipped with a drawstring to allow the net to be drawn snug around the neck and tied. To keep the netting away from the face when the drawstring is to be drawn snug, place a small, flexible branch inside the net and bend it in a circle around your head. The branch will then lift the net away from the exposed skin of the face and neck.

## 2-9. PONCHO 2-9.

The lightweight waterproof poncho is designed to be worn as an outer garment or used as a shelter. The poncho has a hood with drawstring which may be worn over the head, using the drawstring to secure the hood in position. Snaps are provided on the front of the poncho to permit the poncho to be closed around the body. The poncho can be erected as a one-man pup-tent style shelter. If more than one poncho is available, a larger tent unit can be constructed as outlined in the large shelter construction instructions stenciled on the poncho.

## 2-10. SMOKE AND ILLUMINATION SIGNAL 2-10.

The smoke and illumination signal is a hand" actuated combination day or night distress signal.

One end of the signal device contains orange smoke for daytime use and the opposite end (flare end) contains a pyrotechnic composition for illumination during nighttime use. The illumination end of the signal can be identified by a series of embossed projections located 1/4 inch below the end cap. The average burning time of the illumination signal is 18 seconds and when used at night as recommended, it can be seen at a distance of two to three miles from an altitude of 3000 feet. During daytime, the smoke end of the signal can be seen at a distance of two to three miles at an altitude of 3000 feet. To activate the smoke and illumination signal, proceed as follows:

**WARNING**

**Do not attempt to ignite both ends of a signal at the same time.**

a. Remove the paper or plastic cap from either the smoke or illumination end of the signal, as applicable.

b. Grasp the signal firmly with one hand and hold the signal close to the chest in a horizontal position with each end of the signal pointed away from the body.

c. Insert the index finger of your free hand into the pull ring which shall break the soldered end of the cap free. If the soldered cap does not release, bung the pull ring down over the rim of the can and press down with the heel of your hand, using the ring as a lever to break the seal.

**WARNING**

**Use extreme care when using the signal as an illumination device as hot, molten residue dripping from the burning signal can cause serious burns on the body.**

**CAUTION**

**When exerting pull on the pull ring, do not use a twisting motion as the pull tab may tear off resulting in a defective signal.**

d. Make a steady, straight horizontal pull until the pull nag and tab separate from the signal. Continue pulling upward until a full arms length is reached and point the activated signal end upward at a 45° angle until the signal has burned out.

**NOTE**

**Do not discard a smoke and illumination signal until both ends of the device have been used. The smoke end of the signal device will burn in an illumination manner providing that once the smoke end has been activated, an open flame is placed against the smoking end.**

## 2-11. ILLUMINATING CANDLE 2-11.

There are five illuminating candles in the individual cold climate survival kit which may be used for lighting at night or as a means of warmth inside a small, ventilated shelter. Each candle is capable of burning for approximately 8 hours.

## 2-12. FOOD PACKET 2-12.

The individual cold climate survival kit contains seven survival food packets which are to be used if no other food source is available. The food in each packet is in concentrated form and should only be consumed with water to prevent personal dehydration.

.

## 2-13. WATER BAG 2-13.

**CAUTION**

- **When exposed to cold temperatures, the water bag will become hand and rigid. Exercise care when removing the bag from the survival kit and do not at tempt to unfold the bag until it has been warmed, which may be accomplished by placing the bag next to your body.**

**CAUTION**

- **Do not store water in the water bag in below freezing temperatures.**

The water bag is a soft, pliable, plastic bag which may be used for storing water accumulated from. rainfall or some other water source.

## 2-14. PLASTIC SPOON 2-14.

The plastic spoon is provided as an aid in cooking and eating of the survival rations. When cooking, unsure the spoon is not placed near open flame or hot

metal. After use, clean and dry the spoon and store it In original wrapper.

## 2-15. SURVIVAL MANUAL 2-15.

The survival manual (AFM 64-5 or FM 21-7fi) is included in the survival kit to provide instructions on survival under all climatic and environmental conditions. Reference the survival manual for all survival methods and practices.

## 2-16. TRIOXANE COMPRESSED FUEL 2-16.

**WARNING**

**Trioxane compressed fuel contains metaformaldehyde, which is highly toxic. Ingestion constitutes a medical emergency. Wash hands immediately after handling opened or leaking packages**.

The fuel is in a block form with each block wrapped and contained in a paper box which furnishes detailed instruction on use of the fuel. The fuel may be

used for heating food or as a fire-starting aid when trying to burn green or wet wood and other hard-to burn fuel items.

## 2-17. SIGNALING MIRROR 2-17.

The signaling mirror is a glass signaling instrument equipped with a retaining cord on one corner and a see-through sighting device in the center of the glass. When used in daytime and with good visibility a mirror flash can be seen at a distance of 30 miles at an altitude of 10,000 feet. Though less effective, and with possible shorter range, mirror flashes can also be seen on cloudy days with limited visibility. Procedures for using the mirror are as follows:

a. Hold the mirror in a manner which will allow the sunlight to reflect on a nearby surface such as the hand or other close object.

b. Bring the mirror up to eye level and using one eye, look through the sighting device until an intense bright spot is located. This is the aim indicator.

c. Hold the mirror close to the eye and slowly turn it until the bright spot is on the target, figure 2-2.

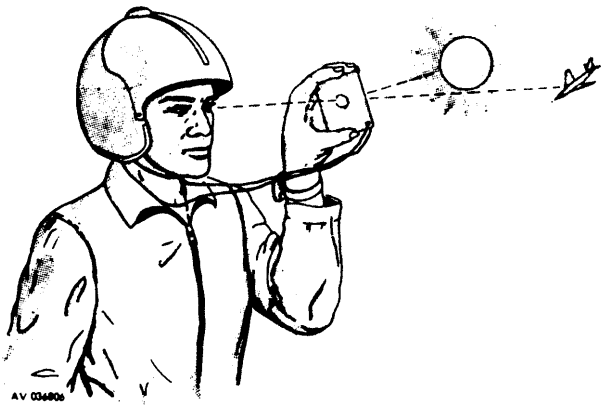

**Figure 2-2. Using the Signaling Mirror**

## 2-18. FRYING PAN 2-18.

The frying pan is a lightweight Teflon-coated aluminum device which may be used for cooking, collecting rainwater, melting snow and ice for drinking water, or as a wash basin for personal hygiene. Holes are drilled in the side panels of the pan to pros vice a means of inserting a wire or small branch for use when lifting the pan when it is hot.

## 2-19. SLEEPING BAG 2-19.

The sleeping bag is vacuum-pressure packed in a thin vinyl bag. It is sealed at the factory and cannot be repacked. Care must be taken when handling and packing sleeping bag to prevent tearing of the vinyl bag and losing the vacuum. Should the vacuum be lost, sleeping bag will swell and become too bulky to repack in the survival kit. If opened they cannot be resealed and used again. They must be removed and replaced in survival kit. Opened sleeping bags can either be used for training or turned in for disposal as required.

## 2-20. MATCH BOX 2-20.

**CAUTION**

**When filling match box, place head of matches down to bottom and do not force matches to obtain a snug fit.**

The match box is a plastic waterproof container with a screw type cap which has a striker on the bottom. The match box is filled with four boxes of matches.

## 2-21. SNARE WIRE 2-21.

The brass snare wire is 20-feet long and may be used to construct snares or traps for small game as prescribed by the instructions provided in the survival manual (AFM 64-5 or FM 21-76~.

## 2-22. FISHING KIT 2-22.

The fishing kit is equipped with hooks, line, and artificial lures for catching fish. Instructions for use of

this kit are furnished with the kit. Supplemental fishing instructions are provided in the survival manual (AFM 64-5 or FM 21-76).

## 2-23. POCKET KNIFE 2-23.

The placket knife is furnished for use as an aid in the cleaning of fish or small game and for light-duty cutting such as small branches for game traps or shelter material.

## 2-24. FIRE STARTER 2-24.

The Fire Starter is a magnesium bar with a sparking insert located on one side. Use a knife or other hard surface to scrape shavings off the magnesium side. Make a pile of magnesium shavings in the center of a nest of tinder. With a knife or other hard metal object, strike the sparking insert side of the bar with a downward motion to create sparks which should be directed onto the pile of magnesium shavings. For fire building and maintaining various types of cooking and heating fires, follow the instructions in the survival manual (AFM 64-5 OF FM 21-76). If the magnesium bar is inadvertently dropped into the fire, it will not explode or flare up.

## 2-25. SAW, HAND, FINGER GRIP 2-25.

**CAUTION**

**Do not exert heavy pressure or put the blade in a bind. This can cause the blade to bend or break.**

The saw has a wire saw blade with two finger grip rings for using and has finger screws to adjust the saw blade. When using the saw, keep the blade taut by pulling on one arm as the other arm pulls the blade for cutting. Then reverse the arm action. Use short strokes. If the blade breaks, unscrew the finger grip on the shortest piece and insert the longest piece in the slot. Tighten the thumb screw and continue sawing.

## 2-26. BLANKET COMBAT CASUALTY 2-26.

**WARNING**

**In cold/freezing weather, do not put blanket next to body. It will cause you to sweat and possibly freeze.**

The blanket is a versatile piece of survival gear having a multiplicity of uses us an emergency situation, some of which are:

- A protective ground cloth for sleeping and sitting. (Protects from wetness and dampness; some insulation is given if folded several times.)
- A shelter. (Is waterproof and protects from rain, snow, fog as well as sun. Can be spread over a framework constructed from natural materials. Is a fair windbreak if supported by framework.)
- A water collector. (Used in conjunction with a depression dug into the soil; depression is lined with blanket as waterproof water collector.)
- A signal panel. (Ground to air emergency signal)
- A waterproof cover for injured. (Provides protection from becoming wet.)
- A protective cover for equipment.
- A heat conductor. (Used in conjunction with an open fire; blanket is supported on framework, and individual positions himself between the fire and the reflective surface of the blanket.)

## 2-27. SHARPENER 2-27.

The sharpener produces a sharp cutting edge on a knife blade and is capable of sharpening soft scrap metal for various cutting or digger tools. Instructions for sharpener are found on the handle of the blade.

## APPENDIX A

## REFERENCES

| | |
|---|---|
| TM 10-1670-1 | Survival Uses of the Parachute |
| TM 10-1670-213-10 | Operator's Manual for Parachute Personnel, Types: 28-Foot-Diameter Back, 28-Foot Diameter Chest, and NB-8 Back |
| AFM 64-5 | Search and Rescue Survival |
| FM 21-76 | Survival, Evasion and Escape |
| DA PAM 738-751 | Functional User's Manual for the Army Maintenance Management System - Aviation (TAAMS-A) |

By Order of the Secretary of the Army:

JOHN H. WICKHAM, JR.
*General, United States Army*
*Chief of Staff*

Official:

R. L. DILWORTH
*Brigadier General, United States Army*
*The Adjutant General*

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# THE METRIC SYSTEM AND EQUIVALENTS

## NEAR MEASURE

. Centimeter = 10 Millimeters = 0.01 Meters = 0.3937 Inches
1 Meter = 100 Centimeters = 1000 Millimeters = 39.37 Inches
1 Kilometer = 1000 Meters = 0.621 Miles

## WEIGHTS

Gram = 0.001 Kilograms = 1000 Milligrams = 0.035 Ounces
1 Kilogram = 1000 Grams = 2.2 lb.
1 Metric Ton = 1000 Kilograms = 1 Megagram = 1.1 Short Tons

## LIQUID MEASURE

1 Milliliter = 0.001 Liters = 0.0338 Fluid Ounces
1 Liter = 1000 Milliliters = 33.82 Fluid Ounces

## SQUARE MEASURE

1 Sq. Centimeter = 100 Sq. Millimeters = 0.155 Sq. Inches
1 Sq. Meter = 10,000 Sq. Centimeters = 10.76 Sq. Feet
1 Sq. Kilometer = 1,000,000 Sq. Meters = 0.386 Sq. Miles

## CUBIC MEASURE

1 Cu. Centimeter = 1000 Cu. Millimeters = 0.06 Cu. Inches
1 Cu. Meter = 1,000,000 Cu. Centimeters = 35.31 Cu. Feet

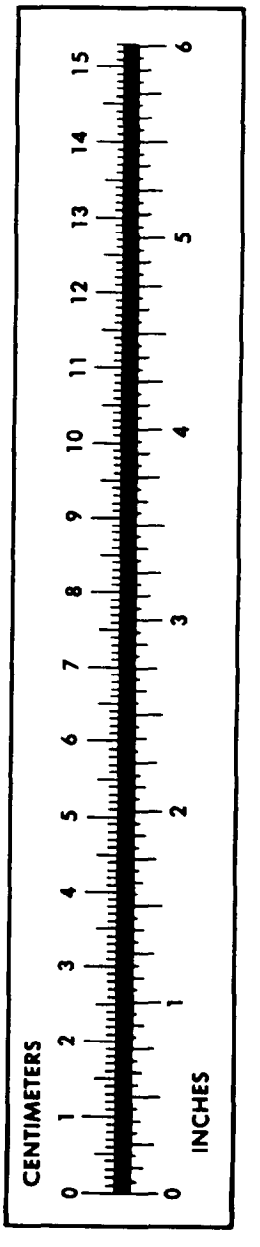
## TEMPERATURE

5/9(°F - 32) = °C
212° Fahrenheit is evuivalent to 100° Celsius
90° Fahrenheit is equivalent to 32.2° Celsius
32° Fahrenheit is equivalent to 0° Celsius
9/5C° + 32 =°F

## APPROXIMATE CONVERSION FACTORS

| TO CHANGE | TO | MULTIPLY BY |
|---|---|---|
| Inches | Centimeters | 2.540 |
| Feet | Meters | 0.305 |
| Yards | Meters | 0.914 |
| Miles | Kilometers | 1.609 |
| Square Inches | Square Centimeters | 6.451 |
| Square Feet | Square Meters | 0.093 |
| Square Yards | Square Meters | 0.836 |
| Square Miles | Square Kilometers | 2.590 |
| Acres | Square Hectometers | 0.405 |
| Cubic Feet | Cubic Meters | 0.028 |
| Cubic Yards | Cubic Meters | 0.765 |
| Fluid Ounces | Milliliters | 29.573 |
| ıts | Liters | 0.473 |
| arts | Liters | 0.946 |
| allons | Liters | 3.785 |
| Ounces | Grams | 28.349 |
| Pounds | Kilograms | 0.454 |
| Short Tons | Metric Tons | 0.907 |
| Pound-Feet | Newton-Meters | 1.356 |
| Pounds per Square Inch | Kilopascals | 6.895 |
| Miles per Gallon | Kilometers per Liter | 0.425 |
| Miles per Hour | Kilometers per Hour | 1.609 |

| TO CHANGE | TO | MULTIPLY BY |
|---|---|---|
| Centimeters | Inches | 0.394 |
| Meters | Feet | 3.280 |
| Meters | Yards | 1.094 |
| Kilometers | Miles | 0.621 |
| Square Centimeters | Square Inches | 0.155 |
| Square Meters | Square Feet | 10.764 |
| Square Meters | Square Yards | 1.196 |
| Square Kilometers | Square Miles | 0.386 |
| Square Hectometers | Acres | 2.471 |
| Cubic Meters | Cubic Feet | 35.315 |
| Cubic Meters | Cubic Yards | 1.308 |
| Milliliters | Fluid Ounces | 0.034 |
| Liters | Pints | 2.113 |
| Liters | Quarts | 1.057 |
| ers | Gallons | 0.264 |
| ms | Ounces | 0.035 |
| ograms | Pounds | 2.205 |
| Metric Tons | Short Tons | 1.102 |
| Newton-Meters | Pounds-Feet | 0.738 |
| Kilopascals | Pounds per Square Inch | 0.145 |
| lometers per Liter | Miles per Gallon | 2.354 |
| meters per Hour | Miles per Hour | 0.621 |



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